

IAP7 Rec'd PCT/PTO 30 DEC 2005

PTO-1390 (Rev. 07-2005)

Approved for use through 3/31/2007. OMB 0651-0021  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>		<b>ATTORNEY'S DOCKET NUMBER</b> <b>78199/000002</b>
<b>INTERNATIONAL APPLICATION NO.</b> <b>PCT/CN2003/000862</b>	<b>INTERNATIONAL FILING DATE</b> <b>16 OCTOBER 2003</b>	<b>U.S. APPLICATION NO. (if known, see 37 CFR 1.5)</b> <b>10/563144</b>
<b>TITLE OF INVENTION</b> <b>A MULTIPHASE REACTOR</b>		
<b>APPLICANT(S) FOR DO/EO/US</b> <b>Hanxiang SHI</b>		
<p>Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:</p> <ol style="list-style-type: none"> <li><input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li><input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li><input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.</li> <li><input checked="" type="checkbox"/> The US has been elected (Article 31).</li> <li><input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))             <ol style="list-style-type: none"> <li><input checked="" type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li> <li><input type="checkbox"/> has been communicated by the International Bureau.</li> <li><input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ol> </li> <li><input checked="" type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2))             <ol style="list-style-type: none"> <li><input checked="" type="checkbox"/> is attached hereto.</li> <li><input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ol> </li> <li><input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))             <ol style="list-style-type: none"> <li><input checked="" type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li><input type="checkbox"/> have been communicated by the International Bureau.</li> <li><input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li><input type="checkbox"/> have not been made and will not be made.</li> </ol> </li> <li><input checked="" type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</li> <li><input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</li> <li><input checked="" type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</li> </ol> <p><b>Items 11 to 20 below concern document(s) or information included:</b></p> <ol style="list-style-type: none"> <li><input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</li> <li><input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</li> <li><input checked="" type="checkbox"/> A preliminary amendment.</li> <li><input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76.</li> <li><input type="checkbox"/> A substitute specification.</li> <li><input type="checkbox"/> A power of attorney and/or change of address letter.</li> <li><input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825.</li> <li><input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).</li> <li><input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).</li> </ol>		

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

U.S. APPLICATION NO. (if known, see 37 CFR 1.5)	INTERNATIONAL APPLICATION NO.	ATTORNEY'S DOCKET NUMBER																																																																																								
10/1563144	PCT/CN2003/000862	78199/000002																																																																																								
20. Other items or information: <b>Copy of WO2005/000451; Copy of International Search Report; Letter for filing without Declaration; Post card</b>																																																																																										
<table border="1"> <thead> <tr> <th colspan="2">The following fees have been submitted</th> <th>CALCULATIONS</th> <th>PTO USE ONLY</th> </tr> </thead> <tbody> <tr> <td>21. <input checked="" type="checkbox"/> Basic national fee (37 CFR 1.492(a))</td> <td>\$300</td> <td>\$ 300.00</td> <td></td> </tr> <tr> <td>22. <input checked="" type="checkbox"/> Examination fee (37 CFR 1.492(c))  If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). \$0 by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). \$0 All other situations.....</td> <td></td> <td>\$ 200.00</td> <td></td> </tr> <tr> <td>23. <input checked="" type="checkbox"/> Search fee (37 CFR 1.492(b))  If the written opinion of the ISA/US or the International preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). \$0 Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority..... \$100 International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB..... \$400 All other situations..... \$500</td> <td></td> <td>\$ 400.00</td> <td></td> </tr> <tr> <td colspan="2"><b>TOTAL OF 21, 22 and 23 =</b></td> <td>\$900.00</td> <td></td> </tr> <tr> <td colspan="3"> <input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.         </td> <td></td> </tr> <tr> <td>Total Sheets</td> <td>Extra Sheets</td> <td>Number of each additional 50 or fraction thereof (round up to a whole number)</td> <td>RATE</td> </tr> <tr> <td>13 - 100 =</td> <td>□ /50 =</td> <td>□</td> <td>x \$250</td> </tr> <tr> <td colspan="3">Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).</td> <td>\$ 0.00</td> </tr> <tr> <td>CLAIMS</td> <td>NUMBER FILED</td> <td>NUMBER EXTRA</td> <td>RATE</td> </tr> <tr> <td>Total claims</td> <td>7 - 20 =</td> <td>□</td> <td>x \$ 50</td> </tr> <tr> <td>Independent claims</td> <td>1 - 3 =</td> <td>□</td> <td>x \$ 200</td> </tr> <tr> <td colspan="3">MULTIPLE DEPENDENT CLAIM(S) (if applicable)</td> <td>+ \$360</td> </tr> <tr> <td colspan="3"><b>TOTAL OF ABOVE CALCULATIONS =</b></td> <td>\$ 900.00</td> </tr> <tr> <td colspan="3"> <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.         </td> <td></td> </tr> <tr> <td colspan="3"></td> <td><b>SUBTOTAL =</b> \$ 1,030.00</td> </tr> <tr> <td colspan="3">Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).</td> <td>+ \$ 130.00</td> </tr> <tr> <td colspan="3"></td> <td><b>TOTAL NATIONAL FEE =</b> \$ 1,160.00</td> </tr> <tr> <td colspan="3">Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property</td> <td>+ \$ 0.00</td> </tr> <tr> <td colspan="3"></td> <td><b>TOTAL FEES ENCLOSED =</b> \$ 1,160.00</td> </tr> <tr> <td colspan="3"></td> <td>Amount to be refunded: \$</td> </tr> <tr> <td colspan="3"></td> <td>Amount to be charged \$</td> </tr> </tbody> </table>			The following fees have been submitted		CALCULATIONS	PTO USE ONLY	21. <input checked="" type="checkbox"/> Basic national fee (37 CFR 1.492(a))	\$300	\$ 300.00		22. <input checked="" type="checkbox"/> Examination fee (37 CFR 1.492(c))  If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). \$0 by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). \$0 All other situations.....		\$ 200.00		23. <input checked="" type="checkbox"/> Search fee (37 CFR 1.492(b))  If the written opinion of the ISA/US or the International preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). \$0 Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority..... \$100 International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB..... \$400 All other situations..... \$500		\$ 400.00		<b>TOTAL OF 21, 22 and 23 =</b>		\$900.00		<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.				Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE	13 - 100 =	□ /50 =	□	x \$250	Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).			\$ 0.00	CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	Total claims	7 - 20 =	□	x \$ 50	Independent claims	1 - 3 =	□	x \$ 200	MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$360	<b>TOTAL OF ABOVE CALCULATIONS =</b>			\$ 900.00	<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.							<b>SUBTOTAL =</b> \$ 1,030.00	Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).			+ \$ 130.00				<b>TOTAL NATIONAL FEE =</b> \$ 1,160.00	Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property			+ \$ 0.00				<b>TOTAL FEES ENCLOSED =</b> \$ 1,160.00				Amount to be refunded: \$				Amount to be charged \$
The following fees have been submitted		CALCULATIONS	PTO USE ONLY																																																																																							
21. <input checked="" type="checkbox"/> Basic national fee (37 CFR 1.492(a))	\$300	\$ 300.00																																																																																								
22. <input checked="" type="checkbox"/> Examination fee (37 CFR 1.492(c))  If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). \$0 by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). \$0 All other situations.....		\$ 200.00																																																																																								
23. <input checked="" type="checkbox"/> Search fee (37 CFR 1.492(b))  If the written opinion of the ISA/US or the International preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). \$0 Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority..... \$100 International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB..... \$400 All other situations..... \$500		\$ 400.00																																																																																								
<b>TOTAL OF 21, 22 and 23 =</b>		\$900.00																																																																																								
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.																																																																																										
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE																																																																																							
13 - 100 =	□ /50 =	□	x \$250																																																																																							
Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).			\$ 0.00																																																																																							
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE																																																																																							
Total claims	7 - 20 =	□	x \$ 50																																																																																							
Independent claims	1 - 3 =	□	x \$ 200																																																																																							
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$360																																																																																							
<b>TOTAL OF ABOVE CALCULATIONS =</b>			\$ 900.00																																																																																							
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.																																																																																										
			<b>SUBTOTAL =</b> \$ 1,030.00																																																																																							
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).			+ \$ 130.00																																																																																							
			<b>TOTAL NATIONAL FEE =</b> \$ 1,160.00																																																																																							
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property			+ \$ 0.00																																																																																							
			<b>TOTAL FEES ENCLOSED =</b> \$ 1,160.00																																																																																							
			Amount to be refunded: \$																																																																																							
			Amount to be charged \$																																																																																							

10/563144

PTO-1390 (Rev. 07-2005)

Approved for use through 3/31/2007. OMB 0651-0021  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

IAP20 Rec'd PCT/PTO 30 DEC 2005

a.  A check in the amount of \$ \_\_\_\_\_ to cover the above fees is enclosed.

b.  Please charge my Deposit Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ to cover the above fees.  
A duplicate copy of this sheet is enclosed.

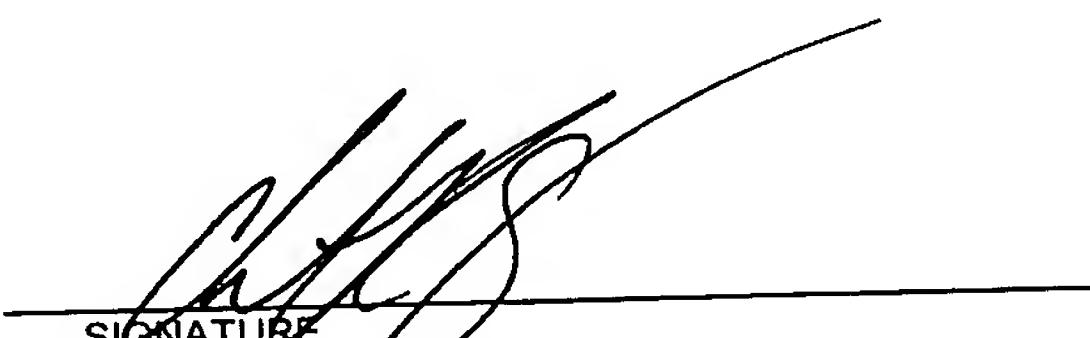
c.  The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-0902 (78199/00002). A duplicate copy of this form is enclosed.

d.  Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:

Susan L. Mizer  
Tucker Ellis & West LLP  
1150 Huntington Bldg.  
925 Euclid Avenue  
Cleveland, Ohio 44115-1475

  
SIGNATURE

Christian R. Drago

NAME

52,472

REGISTRATION NUMBER

Docket No. 78199/00002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
TO 30 DEC 2005

IN THE APPLICATION OF : SHI, Hanxiang  
 FOR : A MULTIPHASE REACTOR  
 INT'L APPLICATION NO. : PCT/CN2003/000862  
 INT'L FILING DATE : 16 OCTOBER 2003  
 PRIORITY DATE CLAIMED : 30 JUNE 2003  
 U.S. SERIAL NO. : UNKNOWN  
 U.S. FILING DATE : UNKNOWN  
 EXAMINER : UNKNOWN  
 ART UNIT : UNKNOWN  
 CUSTOMER NO. : 23380

LETTER

**Mail Stop PCT**  
 Commissioner for Patents  
 P. O. Box 1450  
 Alexandria, VA 22313-1450

Dear Sir:

The attached application is submitted herewith absent a Declaration and Power of Attorney forms in accordance with 37 CFR § 1.53(b). Enclosed is a Preliminary Amendment to eliminate multiple dependencies in a claim, a PCT International Search Report and a PCT International Preliminary Examination Report. The inventor is as follows:

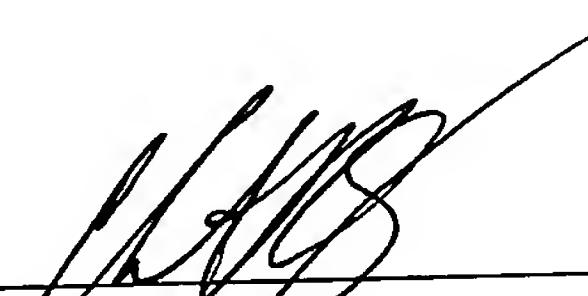
Hanxiang SHI  
 Shijiacan, Zonghan Street  
 Cixi, Zhejiang Province, 315301  
 CHINA

This patent application claims priority of PCT Patent Application No. PCT/CN2003/000862 filed October 16, 2003.

It is requested that the Patent Office direct all correspondence regarding this application to:

Susan L. Mizer  
 Tucker Ellis & West LLP  
 925 Euclid Avenue  
 1150 Huntington Building  
 Cleveland, Ohio 44115

Date: December 30, 2005

  
 Christian R. Drago  
 Tucker Ellis & West LLP  
 925 Euclid Avenue  
 1150 Huntington Building  
 Cleveland, Ohio 44115  
 Registration No. 52,472  
 Customer No. 23380  
 Phone: 216/696-4943  
 Facsimile: 216/592-5009

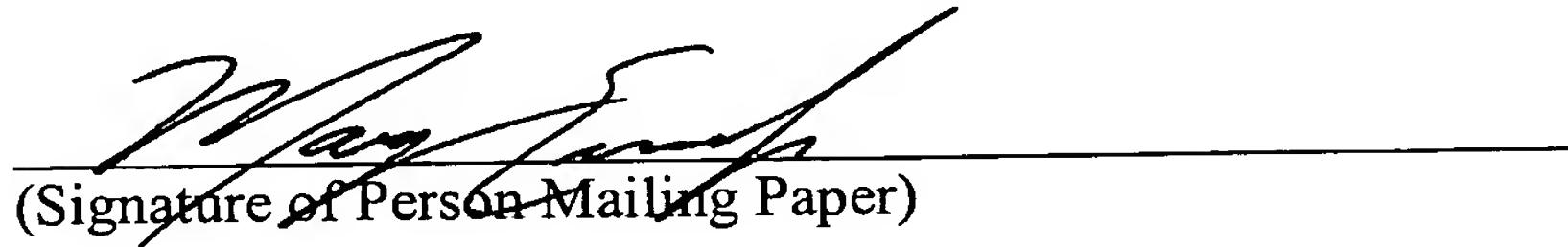
10/563144

IAP20 Rec'd PCT, PTO 30 DEC 2005

**MAIL CERTIFICATION UNDER 37 C.F.R. §1.10**

I hereby certify that the attached US National Phase Patent Application (along with any other paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on December 30, 2005 in an envelope as "Express Mail Post Office to Addressee" Mailing Label Number EV 515354224 US addressed to the: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Mary Erne, Jr.  
(Typed or Printed Name of Person Mailing Paper)

  
(Signature of Person Mailing Paper)

Docket No.: 78199/00002